9th National Clean Cites Conference and Exposition Palm Springs, CA

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Fleet Manager
Hennepin County
Minneapolis, Minnesota
May 18-21, 2003

- **A Hennepin County**
- *Q* Central Mobile Equipment Division
- ₂ E85 Fuel
- **National Reports** BioDiesel Fuel
- **A Hybrids Vehicles**
- **Re-Refined Oils and Greases**
- *Questions*

- **A Hennepin County**
- w central monile stillinent ningion
- र द्राच् र्गाभी
- श राग्रां इड में गाने
- ช กุกมนากร กุรการกรร
- a ya-yaiinan dilaanni qyaasaa
- ช กิกระบุกกร

Hennepin County

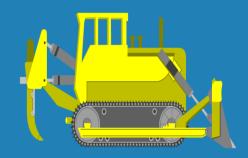
- **Ω Population 1,116,200 22.7% of State**
- **Square Miles 611** 563 Square Miles Land
- *№* 104 Lakes 48 Square Miles of Lakes
- a Cities 45
- _N Bridges 137
- a Signs 51,000



- a Hennepin County
- *Q* Central Mobile Equipment Division
- र द्राच् र्गाभी
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- ช กุกมนากลากคล
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Central Mobile Equipment Division

- **a** 1028 Pieces of Equipment
- **a** 30 Employees
- **A Internal Leasing Company**
- *A Expense Budget Under \$8M*
- a 350,000 Gallons Diesel Fuel
- *A* **420,000 Gallons Unleaded Fuel**



- Stilling refresh to mining
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- a E85 fuel
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E85 Fuel

- **∂** 67 Units
- *a* Fuel / Driveability Performance
- **a** Fueling Location
- **Name of the Express Fuel Cards**



E85 Fuel

- **Renewable**
- *a* **Lower Emission**
- **National Economy**



E85 Fuel

- Problems
 Number of Stations
 Identification of Vehicles
 Cost
- Solution
 Communication
 Marketing



- Stilling refresh to mining
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- **ର BioDiesel Fuel**
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- ช ก็กระกุกกร

BioDiesel Fuel

- ର୍ B100 Soybean Cooking Oil
- **Diesel Blending With Petroleum Diesel B2 B20**
- Advantages
 No Engine Modification
 Increases Lubricity
 Lowers Emissions



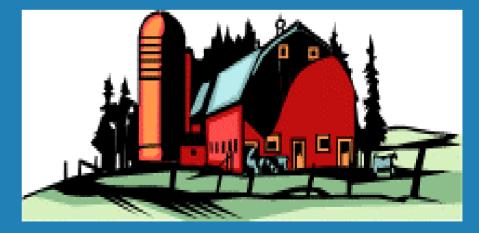
BioDiesel Fuel

April 1998 Test (B20)
Soybean based
17 Months of Testing - Two winters
24,800 Gallons

November 2001 Test (B20)
50/50 Used Cooking Oil & Soybean
6 Months of Testing
5,604 Gallons

BioDiesel Fuel

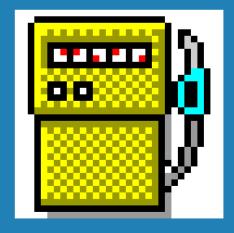
- **a Oil Sampling**
- a filters
- **Natures**
- **Six Identical Trucks**
- ନ୍ Fuel Mileage
- ର Cold Starting



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- श राग्रां इड में गाने
- **National Methods Appries Vehicles**
- र एक-एकाग्रामित त्राहि साम होत्तर कर
- ช กิกระบุกกร

Hybrid Vehicles

- **A Four Toyota Prius**
- **A Fuel Economy**
- **Our Drivers Evaluation**
- *a* Performance
- **Nature Plans**



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- **Re-Refined Oils and Greases**
- ช กิกระกุกกร

Re-Refined Oils and Greases

- *Q* Changing All Oils and Grease
- 2 Cost
- **Denefits**
- **National Re-Useable Oil Filters**
- **Q Oil Sampling**



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- *o* Questions

Alternative Fuels

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